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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/497,021	02/01/2000	Gregg S. Goyins	10992292-1	6980

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EXAMINER

ZAMANI, ALI A

ART UNIT

PAPER NUMBER

2674

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/497,021

Applicant(s)

GOYINS ET AL.

Examiner

Ali A. Zamani

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Helbing (US Pat. No. 6,198,523 B1) in view of Strathman et al. (US Pat. No. 5,694,191).

In regard to claims 1-19, Helbing disclose a switchable polarizing apparatus for optical projection displays, said apparatus comprising: a first electrode (13) for receiving a first driving signal, and a second electrode for receiving a second driving signal, wherein the first and second driving signals are different; a layer of liquid crystal material (21) positioned between the first and second electrodes, a buffer circuit (T1 and T2) coupled to the first and second electrodes, said buffer circuit applying the driving voltage signals to the first and second electrodes. Helbing also teach the magnitude of an electric field across the liquid crystal material is proportional to the difference in voltage level between two electrode between which it is sandwiched and an electric field direction switching circuit that switches the voltage of the first transparent electrode between a first voltage level (Vs) received from a voltage source and a second voltage level (ground) in response to a control signal (S+) received at control signal input (105) (see Figs 10A and 10B, col. 15, lines 560-63). Helbing substantially teach the above claimed limitations except for teaching a "first and second current source". However, Strathuman et al. disclose a liquid crystal display having an non-uniform heat producing element disposed therein which produces

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more heat around the display (see the abstract). Strathuman also disclose an LCD heater, which a current source (104) and a current sink (106) coupled to source electrode (108) and sink electrode (110) are a plurality of current paths (112) which are depicted as being generally across film (102) and a continuous resistive film having a constant and uniform number of layers of resistive material disposed on liquid crystal display surface, for generating heat on liquid crystal display surface (see Fig. 7). Thus, it would have been obvious to one of ordinary skill in the art to utilize the current source (104 and 106) of Strathman et al. in the switchable polarizer of Helbing with equal in magnitude current with respect to each other (first electrode and second electrode) to provide a display device with a liquid crystal cell such that the display unit can be operated reliably and with only short switching times even in the case of high temperature.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Zamani whose telephone number is (703) 308-6414. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe, can be reached on (703) 305-4709.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, DC 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the Technology Center 2600 Customer Service Office whose telephone  
number is (703) 306-0377.

Ali Zamani

December 12, 2002



FORWARDED TO: [illegible]  
[illegible]  
[illegible]